

CPS ENERGY BOARD OF TRUSTEES SUSTAINABLE ENERGY POLICY STATEMENT

‘Bridging the Present Energy Gap: Transitioning to a Sustainable Energy Future’

Background

In March 2003, we – the CPS Energy Board of Trustees – issued our Agenda and Focus document detailing the Board’s responsibilities to the company our owner (the City of San Antonio) and our community. One of the Board’s major responsibilities is: “To ensure the future viability and prosperity of CPS Energy.”

As a direct outgrowth of the Agenda and Focus, the Board in June 2003 adopted the CPS Energy Strategic Energy Plan, a four-pronged approach to meeting Greater San Antonio’s future energy needs. The Plan calls for (1) vigorously pursuing energy efficiency/conservation; (2) significantly increasing the supply of renewable energy; (3) maintaining the company’s environmental commitment; and (4) continuing to supply reliable, cost-competitive electricity.

Looking to the future, the Board plans to sharpen its focus to prepare the energy system to acknowledge and embrace an emerging energy mode that will evolve our current infrastructure to a more-dynamic infrastructure in the next century. As such, we will continue to maintain our present energy infrastructure to produce and distribute power, and we will support new centralized power generation units that utilize fossil fuels. In tandem, we will augment our support of Vision 2020 to reduce our energy needs by 771 megawatts by 2020, through energy efficiency and conservation.

In addition, it is the intent of the Board to carefully weave in a design and new vision that shifts our core competencies of designing, building and managing our centralized energy sources to distributed energy sources that are renewable and that use modern technologies. Such technologies will be smart, reliable and economical in preparation for the economic and environmental challenges that CPS Energy and our community will face. This shift will lead CPS Energy to become independent from energy that is generated outside our grid, yet interdependent on our greatest core competency – the people who work to design and build, distribute and support this modern and distributed approach to energy generation.

Philosophy

CPS Energy is adding to its nationally prominent leadership in renewable energy as well as actively promoting energy efficiency and conservation, but these efforts won’t be enough to meet our future electric demand and stimulate job-producing economic development. Because of the community’s steady growth and the impending retirement of older, less-efficient power plants, another substantial source of electrical generation will be needed in the 2018 time frame. In parallel to energy needs within the state, the

Electric Reliability Council of Texas (ERCOT) estimates more than 20,000 megawatts of new generation may be needed by 2025 to keep pace with the state's growth.

In the decades immediately ahead, the Board believes CPS Energy will have to continue its reliance on all forms of conventional, central-station power plants and renewable energy technologies to bridge another gap – the transition to distributed generation, smart grids and other future energy technologies. The Board further believes it would be prudent to pursue the creation of new, decentralized forms of energy, using Third Industrial Revolution methodology proposed by Jeremy Rifkin, president of the Foundation on Economic Trends in the United States. "We need to envision a future in which millions of individuals can collect and produce locally generated renewable energy in their homes, offices, factories and vehicles; store that energy in the form of hydrogen; and share their power generation with each other across a continent-wide intelligent intergrid," Mr. Rifkin says.

His Third Industrial Revolution approach rests on four pillars, the first of which – renewable energy – is already a key part of our Strategic Energy Plan. The other three pillars are buildings as positive power plants, hydrogen storage and smart grids/plug-in vehicles. Some of Mr. Rifkin's thoughts about the pillars are as follows:

- Buildings as positive power plants – "While renewable energy is found everywhere and new technologies are allowing us to harness it more cheaply and efficiently, we need infrastructure to load it. Over the next 40 years, millions of buildings will be renovated or constructed to serve both as 'power plants' and habitats. These buildings will collect and generate energy locally from the sun, wind, garbage, agricultural and forestry waste, ocean waves and tides, hydro and geothermal – enough to provide for their power needs as well as surplus energy that can be shared."
- Hydrogen storage – "To maximize renewable energy and to minimize cost, it will be necessary to develop storage methods that facilitate the conversion of intermittent supplies of these energy sources into reliable assets. Batteries, differentiated water pumping and other media can provide limited storage capacity. There is, however, one storage medium that is widely available and can be relatively efficient. Hydrogen is the universal medium that 'stores' all forms of renewable energy to assure that a stable and reliable supply is available for power generation and, equally important, for transport."
- Smart grids/plug-in vehicles – "The new smart grids, or intergrids, will revolutionize the way electricity is produced and delivered. Millions of existing and new buildings will be converted or built to serve as 'positive power plants' that can capture local renewable energy to create electricity to power buildings, while sharing the surplus power with others across smart intergrids, just like we now produce our own information and share it with each other across the Internet. The electricity we produce in our buildings from renewable energy will also be used to power electric plug-in cars or to create hydrogen to power fuel cell vehicles. The electric plug-in vehicles, in turn, will also serve as portable power plants that can sell electricity back to the main grid."



Conclusion

The Board will work holistically with the City of San Antonio through the Mayor's office and the Foundation on Economic Trends in the United States to closely monitor current and future methods (1) that are consistent in owning and generating energy that delivers power in forms that are reliable, distributed and sustainable and (2) that balance economic and environmental factors in order to achieve energy independence from the ERCOT grid.

The Board's fundamental belief is that CPS Energy's strength through the years has been the ability to plan, design, build, operate and maintain its own power plants. Since the 1970s, CPS Energy generating units have been constructed with fuels diversification in mind. Thanks to such "energy independence from one fuel source," the company has – to a significant degree – insulated itself from the price volatility of the wholesale electric marketplace managed by ERCOT. More-expensive natural gas-fired generation comprises the bulk of ERCOT assets, however CPS Energy is not dependent on ERCOT for power generation. Instead, the company's greater reliance on less-expensive fuels such as nuclear and coal has indeed resulted in reliable, cost-competitive electricity for CPS Energy customers.

Thus, the Board considers CPS Energy's energy independence vitally important to Greater San Antonio long-term success. The Trustees also support the company's continued ability to produce electricity with centralized, conventional power plants and renewable/sustainable resources until new, viable technologies such as those enunciated by Mr. Rifkin and the Third Industrial Revolution emerge. It is the sentiment of the Board for CPS Energy to chart its independence from the ERCOT grid and own its energy future for the sustainable and viable benefit of our customers and the community.

In alignment with its Agenda and Focus, the CPS Energy Board of Trustees believes:

- a portfolio of conventional energy generation sources – nuclear, coal, natural gas, renewable energy and energy efficiency and conservation – will begin to transition CPS Energy from centralized to distributed generation, thereby promoting energy independence from the ERCOT grid.
- such a transition will be supportive of the Mayor's sustainability initiative for the City of San Antonio, and it will be in sync with our Strategic Energy Plan as well as our Vision 2020 strategic planning initiative toward a more-sustainable future.
- Greater San Antonio can become a national pacesetter in a Third Industrial Revolution scenario that, according to Mr. Rifkin, "brings with it a new era of 'distributed capitalism' in which millions of existing and new businesses and homeowners become energy players. In the process, we will create millions of green jobs, jump start a new technology revolution and dramatically increase productivity, as well as mitigate climate change."